

AMENDMENT

A Version With Markings To Show Changes Made is not included after Applicant's Remarks, because the Amendment involves only claim cancellations.

In the Claims:

✓
Please cancel Claims 19-22.

REMARKS

The Pending Claims:

Claims 1-24 are pending in this application. Claims 1-22 relate to a biosensor. Claims 23-24 relate to a a method of detecting a bioaffecting substance in a test sample.

The Office Action, Applicant's Request for Reconsideration and Withdrawal of the Restriction Requirement, and Applicant's Provisional Election

The Examiner required restriction, under 35 U.S.C. § 121, and required Applicant to elect a single invention to which the claims must be restricted.

The Examiner designated the following three claim groups:

1. Group I; Claims 1-18, drawn to a biosensor comprising: a substrate in contact with a culture medium; a cell network composed of at least one electrically excitable cell; and at least one signal transducer;

2. Group II; Claims 19-22, drawn to a biosensor comprising: a substrate; first and second neurons; and a first and a second transducer; and

3. Group III; Claims 23-24, drawn to a method of detecting a bioaffecting substance in a test sample comprising: providing a biosensor; contacting the test sample with the biosensor; monitoring, with a transducer of the biosensor, a signal; and correlating the signal to the presence or absence of the bioaffecting substance.

Applicant traverses the restriction requirement as detailed hereinbelow, but as required by 37 C.F.R. § 1.143, provisionally elects **Group I**. Applicant's election, and cancellation of Claim 19-22, is made with a complete reservation of all rights under 35 U.S.C. § 121.

Applicant respectfully requests the Examiner to reconsider and withdraw the requirement, at least partially, with respect to Group III (pending Claims 23-24), which Applicant believes should be included with provisionally elected Group I. Contrary to the Examiner's assertion that "in the instant case the process can be practiced using either of the patentably distinct products of Group I or Group II, or with

other product capable of detecting a bioaffecting substance such as a patch clamped cell or a cell loaded with a tracer molecule that is modified (e.g., calcium dye) or mobilized (e.g., radioisotopes) in response to a bioaffecting substance," pending Claim 23, as originally filed, expressly recites, inter alia, ". . . (a) providing said test sample and a biosensor *as in claim 1 . . .*" (Emphasis added). Thus, Claim 23, and implicitly Claim 24 dependent therefrom, do not encompass any kind of biosensor, or other product capable of detecting a bioaffecting substance, except a biosensor of designated Group I (e.g., Claim 1). Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw the requirement, at least with respect to designated claim Group III (pending Claims 23-24), which should be joined to Group I.

Examiner's Requirement of an Election of Species and Applicant's Response

The Examiner required elections of species, under 35 U.S.C. § 121. The Examiner presented the following species of the claimed invention for election:

(a) re insulating and/or barrier layer selected from among silica, silicon, germanium, etc. (e.g., Claim 7);

(b) re cell adhesion promoter containing a terminal group selected from among -NHCH₂CH₂NHCH₂CH₂NH₂, etc. (e.g., Claim 10); or

(c) re cell adhesion inhibitor is selected from among tridecafluoro-1,1,2,2-

tetrahydrooctyl-1-dimethylchlorosilane, etc. (e.g., Claim 11).

Applicant elects: **(b)** re cell adhesion promoter containing a terminal group selected from among $\text{-NHCH}_2\text{CH}_2\text{NHCH}_2\text{CH}_2\text{NH}_2$, etc. (e.g., Claim 10).

Applicant's election is made with a complete reservation of all rights under 35 U.S.C. § 121.

The Examiner stated that upon allowance of a generic claim, Applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim. The Examiner stated that currently Claims 1, 6, and 7 are generic to the species of (a); **Claims 1, 9, and 10 are generic to the species of (b);** and Claims 1, 9, and 11 are generic to the species of (c).

Respectfully submitted,

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